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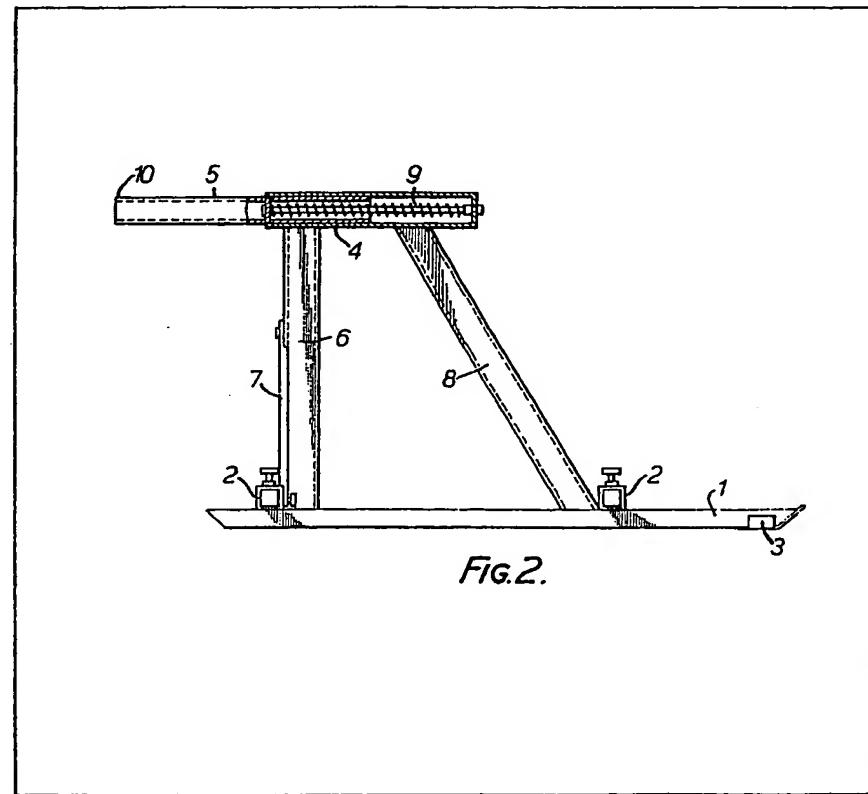
(71) Applicants  
John Frederick Moore,  
"Timberleigh",  
West End,  
Magor,  
Monmouthshire.  
John Moore,  
"Cedar Ville",  
West End,  
Magor,  
Monmouthshire.

(72) Inventors  
John Frederick Moore,  
John Moore.

(74) Agents  
Wynne-Jones, Lainé &  
James

(54) Scrummaging machine

(57) The machine has a base formed by main beams (1) and cross-beams (2) carrying a post (6) and an angled rear strut (8) on which is mounted a cylinder (4) housing a rod (5) which is outwardly biased by a heavy duty spring (9), the free end (10) of the rod providing a mounting for a variety of scrummaging heads. The spring (9) provides a degree of resistance to effort applied by a scrum and the scrummaging head may incorporate further biasing springs. The scrummaging head can, for example, be a pivotally mounted frame enabling wheeling motions to be practised or a large pad to represent a single person about which a scrum maul may form.



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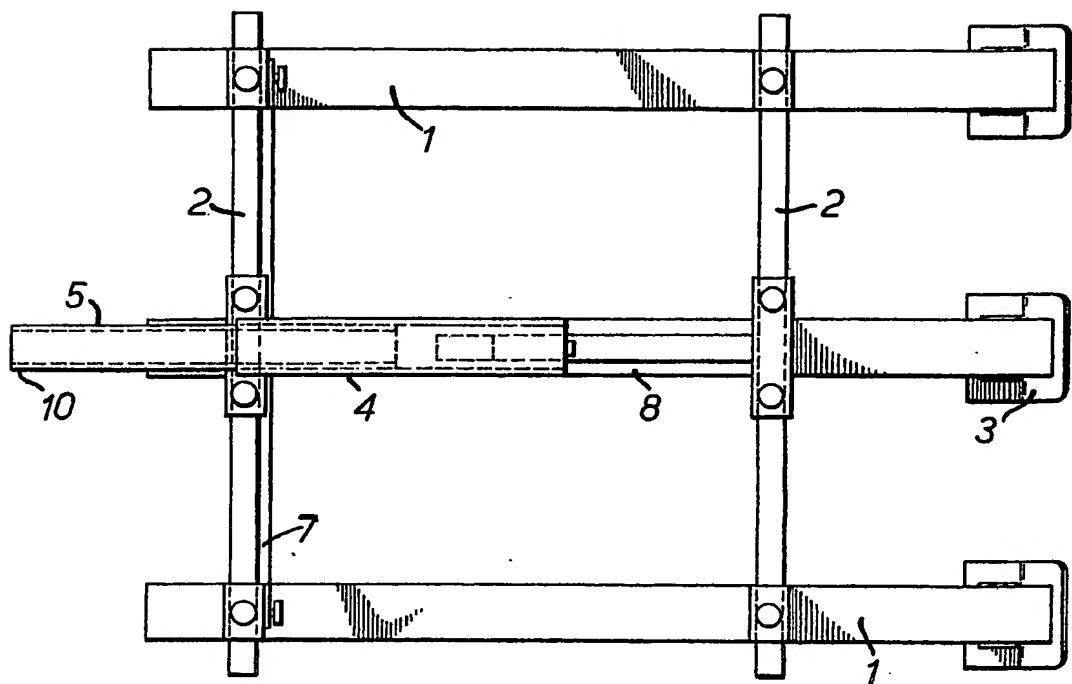


FIG.1.

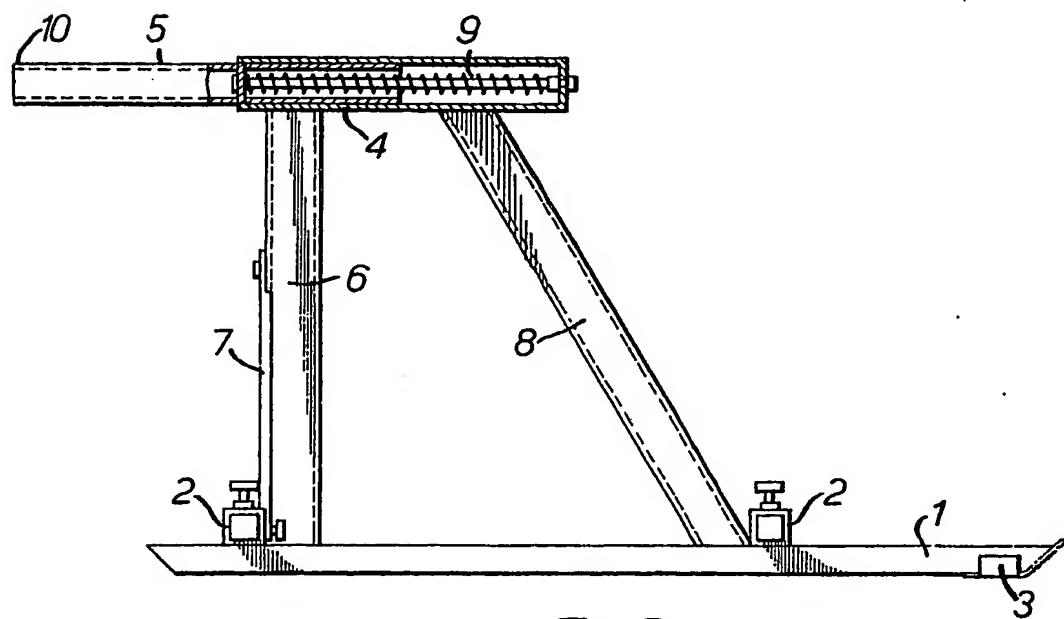


FIG.2.

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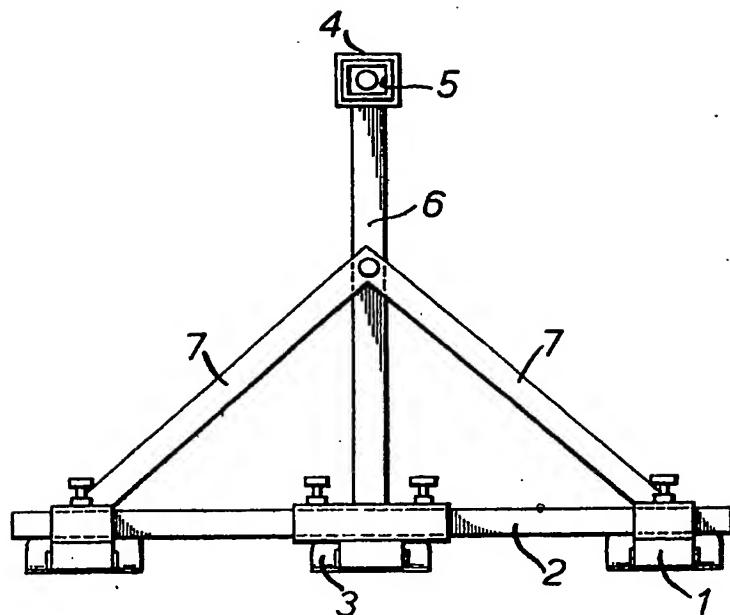


FIG. 3.

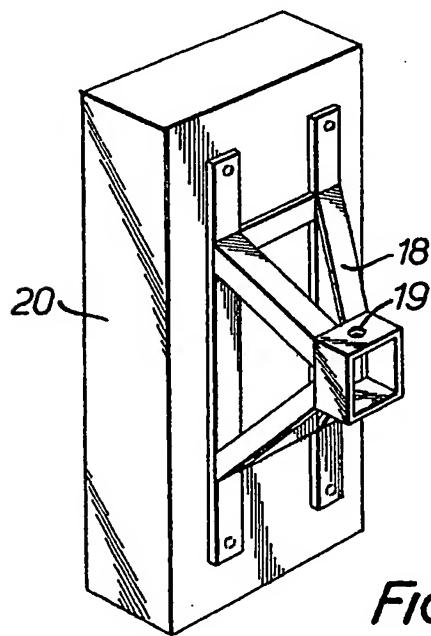


FIG. 6.

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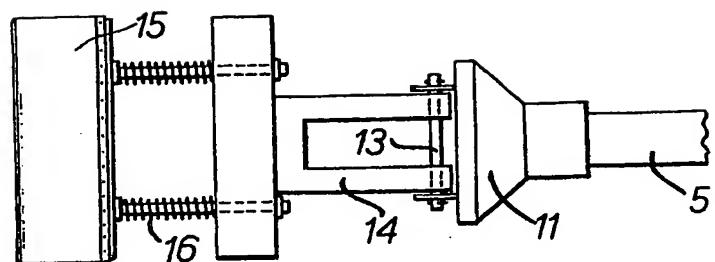


FIG. 4.

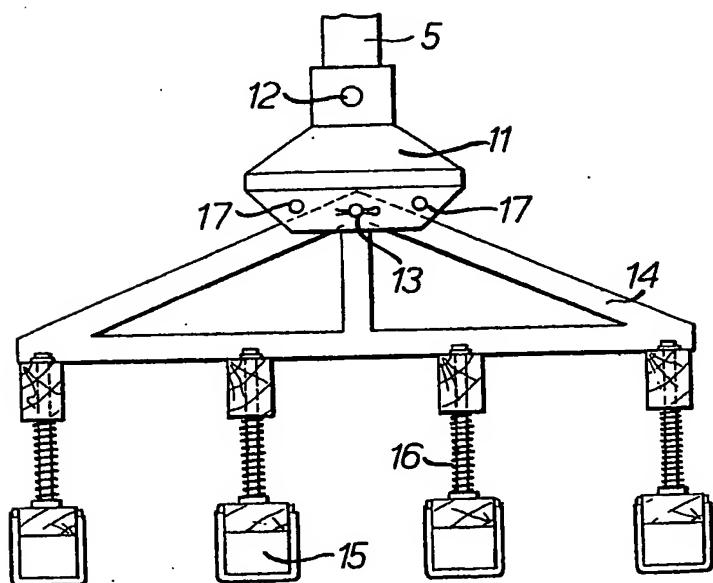


FIG. 5.

**SPECIFICATION****Improvements relating to scrummaging machines**

5 In order to practice the game of rugby football various scrummaging machines have been devised.

- 10 The object of this invention is to provide a scrummaging machine which enables various aspects of the art of scrummaging to be practiced.
- 15 Accordingly this invention provides a scrummaging machine comprising a base structure carrying an upstanding support which is provided at or near the top with a mounting member in the form of a rod which is spring, hydraulically or pneumatically loaded, and to which is removably attached a scrummaging head.
- 20 The provision of a removable attachment for the scrummaging head enables heads of various forms to be attached to the machine for practicing different aspects of the art of scrummaging. Thus, for example, the scrummaging head could comprise a padded member of approximately oblong form to represent a crouching figure around which a maul may form. If conventional scrummaging techniques
- 25 are to be practiced (as opposed to the techniques required for a maul) then the scrummaging head can comprise a frame carrying a row of shoulder pads to be engaged by the front row of a scrum. If the scrummaging head is pivotable with respect to the
- 30 mounting member then this will enable scrum wheeling to be practiced. In this instance it is desirable for the frame to be spring biased into a central position so that the spring biasing will provide a degree of resistance to wheeling as might
- 35 normally be expected. Furthermore means may be provided whereby the frame may be fixed, as required, to prevent pivoting with respect to the mounting member, thus converting the machine back to the condition whereby a direct shove may be
- 40 applied without any wheeling characteristics.

Advantageously the shoulder pads are spring loaded away from the frame.

The loading of the rod providing the mounting member for the scrummaging head means that, 45 when the scrummaging head is subject to an effort applied by one or more players, the head will give to a certain extent as might be expected in a real playing situation. The degree of load may be chosen at will (or indeed may be variable) to provide a 50 reverse effort (against that applied by the players) to the extent which might normally be expected in a real playing situation. Thus the loading could be related to the expected size and strength of the players who will be practicing scrummaging techniques depending, for instance, upon whether the machine is to be used by adults or children. Ideally the rod is slidably engaged within a cylinder attached to the support.

In the preferred arrangement the support comprises 60 an upright front post, front support struts angled from the post to the sides of the base structure and rear support struts angled to the rear of the base structure. The base structure may comprise main rearwardly extending floor-engaging beams interconnected by cross-struts. The mounting member

and the scrummaging head may be interconnected by pins or bolts in aligned holes.

The invention may be performed in various ways and one preferred embodiment thereof, with a 70 possible adaptation, will now be described with reference to the accompanying drawings, in which:-

*Figure 1 is a side view of the scrummaging machine;*

*Figures 2 and 3 are respectively front and plan 75 views of the same machine;*

*Figures 4 and 5 are side and plan views respectively of one form of scrummaging head to be carried by the machine; and*

*Figure 6 is a perspective view of an alternative 80 form of scrummaging head to be used with the machine.*

The scrummaging machine illustrated in Figures 1 to 3 incorporates a base structure comprising three floor-engaging main beams 1 interconnected by two 85 cross-struts 2.

Support feet 3 are provided at the rear ends of the main beams 1 and these may, if desired, be secured into the ground by bolts. If desired a platform of plywood or the like could be secured to either side of

90 the central beam 1 by brackets. This platform could carry persons who will provide added stability to the machine. A mounting member comprising a cylinder 4 housing a rod 5 is carried by a support structure comprising an upright front post 6, front support

95 struts 7 angled from the post 6 to the sides of the base structure and rear support struts 8 angled to the rear of the base structure. The rod 5 is spring loaded within the cylinder 4 by means of a heavy duty spring 9 and, at its extreme end 10, is formed with

100 two vertically aligned holes (not shown) to receive a pin or bolt to enable a scrummaging head to be attached to the rod 5.

One possible form of scrummaging head is illustrated in Figures 4 and 5 and incorporates a bracket

105 11 adapted to fit over the end of the rod 5 and incorporating holes 12 which will receive the pin or bolt for attachment of the head to the rod. Mounted to the bracket 11 by a pivot arrangement 13 is a frame 14 carrying a row of shoulder pads 15 which

110 are spring loaded by springs 16 away from the frame 14. Pins 17 passing vertically through the brackets 11 prevent pivoting of the frame 14 about pivot 13 so that conventional scrummaging techniques may be practiced. If it is desired to practice wheeling then

115 the pins 17 may be removed so that the frame 14 is free to pivot about the pivot arrangement 13. If desired the brackets 11 could be extended sideways and carry springs which will act on the outer

120 portions of the frame 14 to provide some resistance to the wheeling effort applied by players engaged with the shoulder pads 15. An alternative form of scrummaging head is illustrated in Figure 6 and again comprises a bracket 18 adapted to fit over the end of the rod 5 and incorporating holes 19 for the

125 receipt of the pin or bolt which will secure the bracket 18 to the rod 5. In this arrangement the bracket 18 carries an oblong pad member 20 (approximately 4 feet in height and 2 feet in width) meant to represent generally a crouching figure around which a maul may form to practice mauling techniques.

Thus it will be seen that the scrummaging machine illustrated in the drawings enables various aspects of scrummaging techniques to be practiced and of course it would be possible to attach scrummaging heads of different forms from those illustrated in Figures 4 to 6 which will enable the appearance and activities of an opposing scrum to be realistically portrayed. In particular a cheaper version of the scrummaging head shown in Figures 10 4 and 5 could be constructed in which the pads 15 would be attached directly to the frame 14 without any spring biasing and the machine would therefore rely upon the presence of the spring 9 acted on by the rod 5. Also the shoulder pads 15 could incorporate 15 rate recesses to accept the shoulder of persons forming a scrum, thus providing a more positive contact. It would be possible to replace the spring 9 by an hydraulic or pneumatic piston and cylinder arrangement and this in particular would allow the 20 resistance to effort to be varied and would enable the strength of the effort applied by the players to be measured by a suitable measuring device attached to the cylinder.

## 25 CLAIMS

1. A scrummaging machine comprising a base structure carrying an upstanding support which is provided at or near the top with a mounting member 30 in the form of a rod which is spring, hydraulically or pneumatically loaded, and to which is removably attached a scrummaging head.
2. A machine according to claim 1, wherein the rod is slidingly engaged within a cylinder attached to 35 the support.
3. A machine according to claim 1 or to claim 2, wherein the support comprises an upright front post, front support struts angled from the post to the sides of the base structure and rear support struts angled 40 to the rear of the base structure.
4. A machine according to any one of claims 1 to 3, wherein the base structure comprises main rearwardly extending floor-engaging beams interconnected by cross-struts.
- 45 5. A machine according to any one of claims 1 to 4, wherein the mounting member and the scrummaging head are interconnected by removable pins or bolts passing through aligned holes therein.
6. A machine according to any one of claims 1 to 50 5, wherein the scrummaging head comprises a padded member of approximately oblong form to represent a crouching figure around which a maul may form.
7. A machine according to any one of claims 1 to 55 6, wherein the scrummaging head comprises a frame carrying a row of shoulder pads to be engaged by the front row of a scrum.
8. A machine according to claim 7, wherein the frame of the scrummaging head is pivotable with 60 respect to the mounting member to enable scrum wheeling to be practised.
9. A machine according to claim 8, wherein the frame is spring biased into a central position.
10. A machine according to claim 8 or claim 9, 65 wherein the frame may be fixed, as required, to

prevent pivoting with respect to the mounting member.

11. A machine according to any one of claims 7 to 10, wherein the shoulder pads are spring loaded 70 away from the frame.

12. A scrummaging machine substantially as herein described with reference to the accompanying drawings.

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